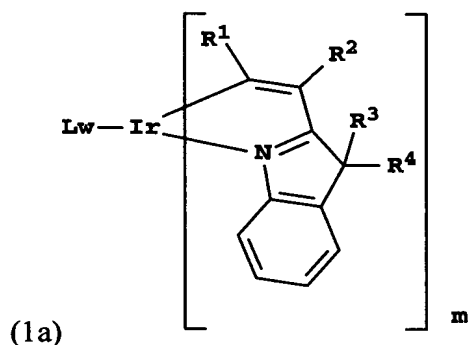


WHAT IS CLAIMED IS:

1. An electroluminescent device comprising a light-emitting layer containing a light emitting phosphorescent material that contains an organometallic complex comprising iridium and an indole compound with an unsubstituted phenyl ring.

2. The device of claim 1 wherein the light-emitting layer contains a light emitting compound of Formula (1a)



wherein:

L represents an independently selected ligand group;

m is 1, 2 or 3

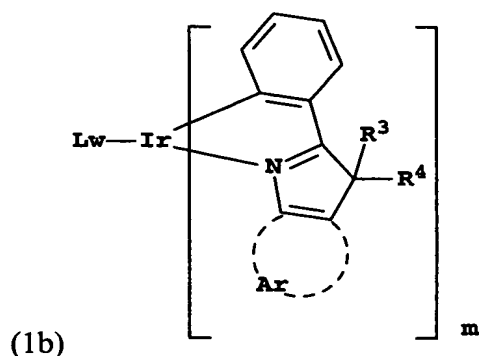
w is 0-4 as necessary in order to satisfy a 6 coordination sites;

R¹ and R² represent independently selected substituent groups, provided that R¹ and R² may form a ring group, and

R³ and R⁴ represent independently selected substituent groups.

3. The device of claim 2 wherein m is 3 and R¹ and R² join together to form an aromatic ring.

4. The device of claim 2 wherein the light-emitting layer contains a light emitting compound of Formula (1b),



wherein:

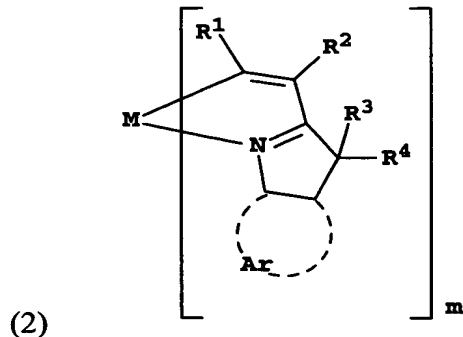
L, w, m, R³, and R⁴ are as defined in claim 2; and

Ar represents a substituted or unsubstituted aromatic group.

5. The device of claim 4 wherein m is 3 and Ar represents a substituted benzene ring.

6. An electroluminescent device comprising a light-emitting layer containing a light emitting phosphorescent material that contains an organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Ru, Os, Pt, and Pd and an indole compound wherein the metal is fully complexed with a plurality of indole compounds.

7. The device of claim 6 wherein the light-emitting layer contains a light emitting compound of Formula (2)



wherein:

M is a coordinated metal selected from the group consisting of Ir, Rh, Pt, and Pd;

m is 3 when M is Ir or Rh and m is 2 when M is Pt or Pd;

R¹ and R² represent substituent groups, provided that R¹ and R² may form a ring group;

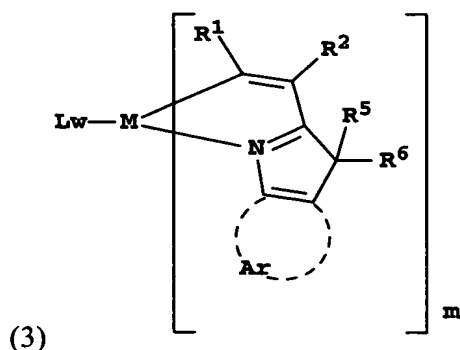
R³ and R⁴ represent independently selected substituent groups; and

Ar represents a substituted or unsubstituted aromatic group.

8. The device of claim 7 wherein R¹ and R² join together to form an aromatic ring.

9. An electroluminescent device comprising a light-emitting layer containing a light emitting phosphorescent material that contains an organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Ru, Os, Pt, and Pd and an indole compound wherein the indole contains two substituents in the 3-position selected from aryl and alkyl components of 2-12 carbon atoms.

10. The device of claim 9 wherein the light-emitting layer contains a light emitting compound of Formula (3)



wherein:

M is a coordinated metal selected from the group consisting of Ir, Rh, Os, Pt, and Pd;

m is 1, 2 or 3 when M is Ir, Rh or Os and m is 1 or 2 when M is Pt or Pd;

L represents an independently selected ligand group;

w is 0- 4 as necessary in order to satisfy a 6 coordination sites when M is Ir, Rh, or Os, and w is 0- 2 as necessary in order to satisfy 4 coordination sites when M is Pt or Pd;

R¹ and R² represent substituent groups, provided that R¹ and R² may form a ring group;

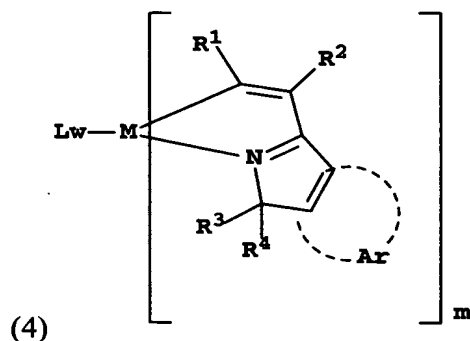
Ar represents a substituted or unsubstituted aromatic group; and

R⁵ and R⁶ independently represent aryl groups or alkyl groups of 2-12 carbon atoms.

11. The device of claim 10 wherein R¹ and R² join together to form an aromatic ring, M represents Ir, and m is 3.

12. An electroluminescent device comprising a light-emitting layer containing a light emitting phosphorescent material that contains an organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Os, Ru, Pt, and Pd and an isoindole compound.

13. The device of claim 12 wherein the light-emitting layer contains a light emitting compound of Formula (4)



wherein:

M is a coordinated metal selected from the group consisting of Ir, Rh, Os, Pt, and Pd;

m is 1, 2 or 3 when M is Ir, Os or Rh and m is 1 or 2 when M is Pt or Pd;

L represents an independently selected ligand group;

w is 0- 4 as necessary in order to satisfy a 6 coordination sites when M is Ir, or Rh, and w is 0- 2 as necessary in order to satisfy 4 coordination sites when M is Pt or Pd;

R¹ and R² represent substituent groups, provided that R¹ and R² may form a ring group;

R³ and R⁴ represent independently selected substituent groups; and

Ar represents a substituted or unsubstituted aromatic group.

14. The device of claim 13 wherein R¹ and R² join together to form an aromatic ring, M represents Ir and m is 3.

15. An electroluminescent device comprising a light-emitting layer containing a light emitting phosphorescent material that contains an organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Ru, Pt, and Pd and an aryl indole or aryl isoindole compound that is unsubstituted in at least one of the indole or aryl ring system.

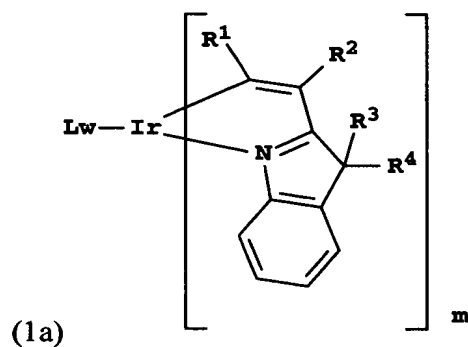
16. An organometallic complex comprising Ir and an indole compound comprising an unsubstituted phenyl ring.

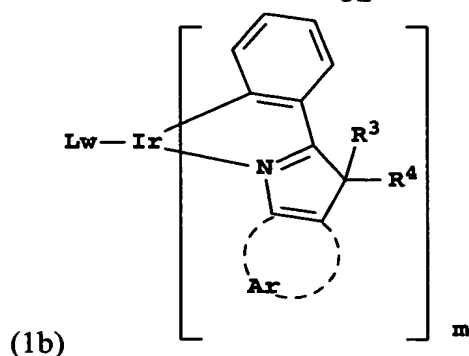
17. An organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Ru, Pt, and Pd and an indole compound wherein the metal is fully complexed with a plurality of indole components.

18. An organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Ru, Pt, and Pd and an indole compound wherein the indole contains two substituents in the 3-position selected from aryl and alkyl components of 2-12 carbon atoms.

19. An organometallic complex comprising a metal selected from the group consisting of Ir, Rh, Ru, Pt, and Pd and an isoindole compound.

20. The device of claim 1 wherein the light-emitting layer contains a light emitting compound of Formula (1a) or (1b),





wherein:

m is 1, 2 or 3;

w is 0-4 as necessary in order to satisfy a 6 coordination sites;

L represents an independently selected ligand group;

R¹ and R² represent substituent groups, provided that R¹ and R² may form a ring group;

R³ and R⁴ represent independently selected substituent groups; and

Ar represents a substituted or unsubstituted aromatic group.

21. The device of claim 1 wherein the light-emitting material is a phosphorescent material compound disposed in a host material.

22. The device of claim 21 wherein the phosphorescent material is present in an amount of up to 15 wt% based on the host.

23. The device of claim 1 wherein the light-emitting material is part of a polymer.

24. The device of claim 1 including a means for emitting white light.

25. The device of claim 24 including a filtering means.

26. The device of claim 1 additionally including a fluorescent light emitting material.

27. A display device comprising the OLED device of claim 1.

28. An area lighting device comprising the OLED device of claim 1.

29. A process for emitting light comprising applying a potential across the device of claim 1.